

Fig. 1

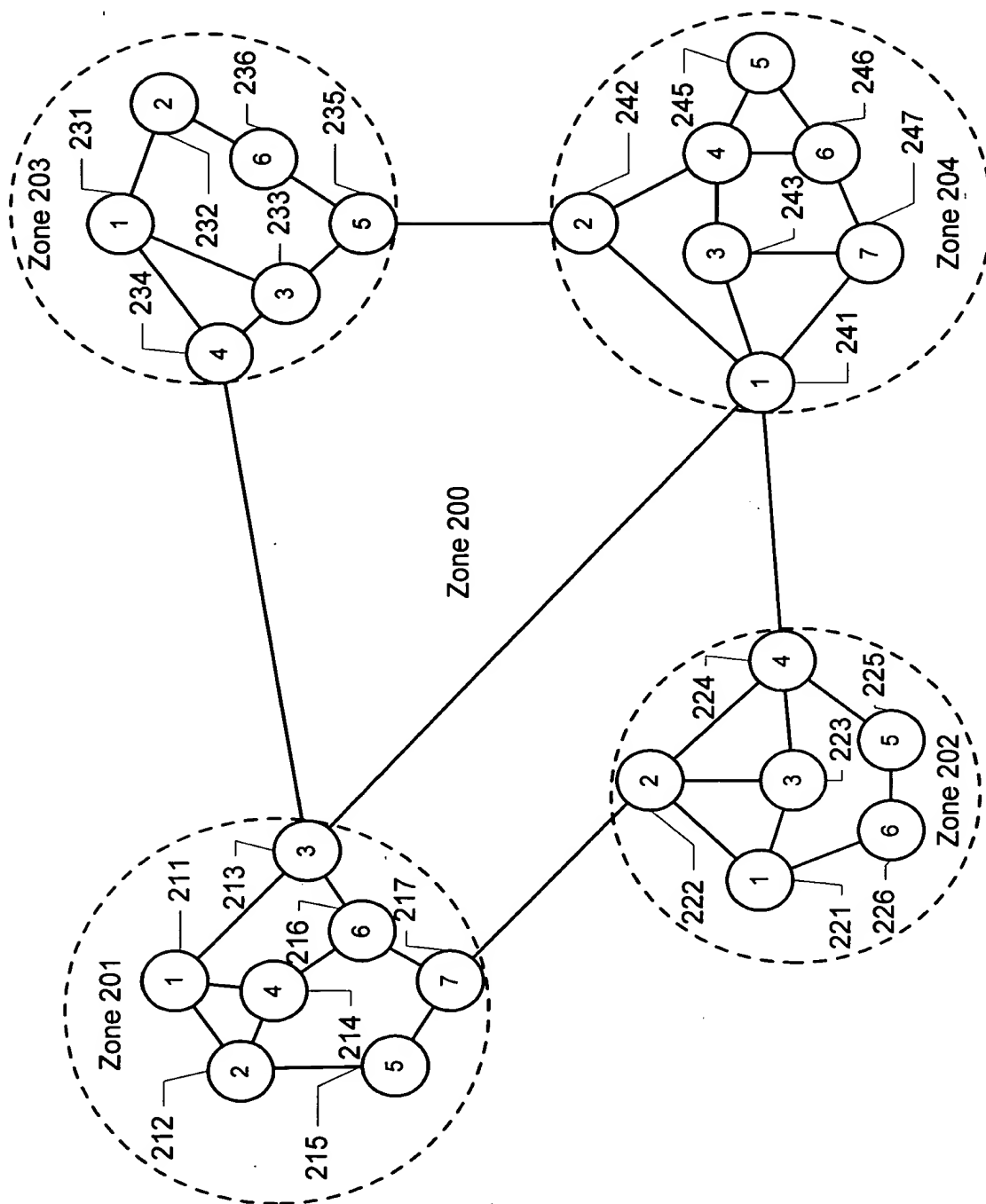


Fig. 2

```

graph TD
    Start([Start]) --> 300[Clear inactivity counter]
    300 --> 310{Hello message received?}
    310 -- Yes --> 300
    310 -- No --> 320[Increment inactivity counter]
    320 --> 330{Inactivity counter reached HelloDeadInterval?}
    330 -- No --> 310
    330 -- Yes --> 340[Change the neighboring node's state from ACTIVE to DOWN]
    340 --> 350[Change the HOP_COUNT field of the LSA to LSInfinity]
    350 --> 360[Start timer to remove the LSA from the node's database]
    360 --> 370[Send copy of the LSA to all ACTIVE neighboring nodes]
    370 --> 380[Generate a LINK_DOWN event]
    380 --> 390[Send GET_LSA request to all neighbors for dead node]
    390 --> End([End])

```

**Fig. 3**

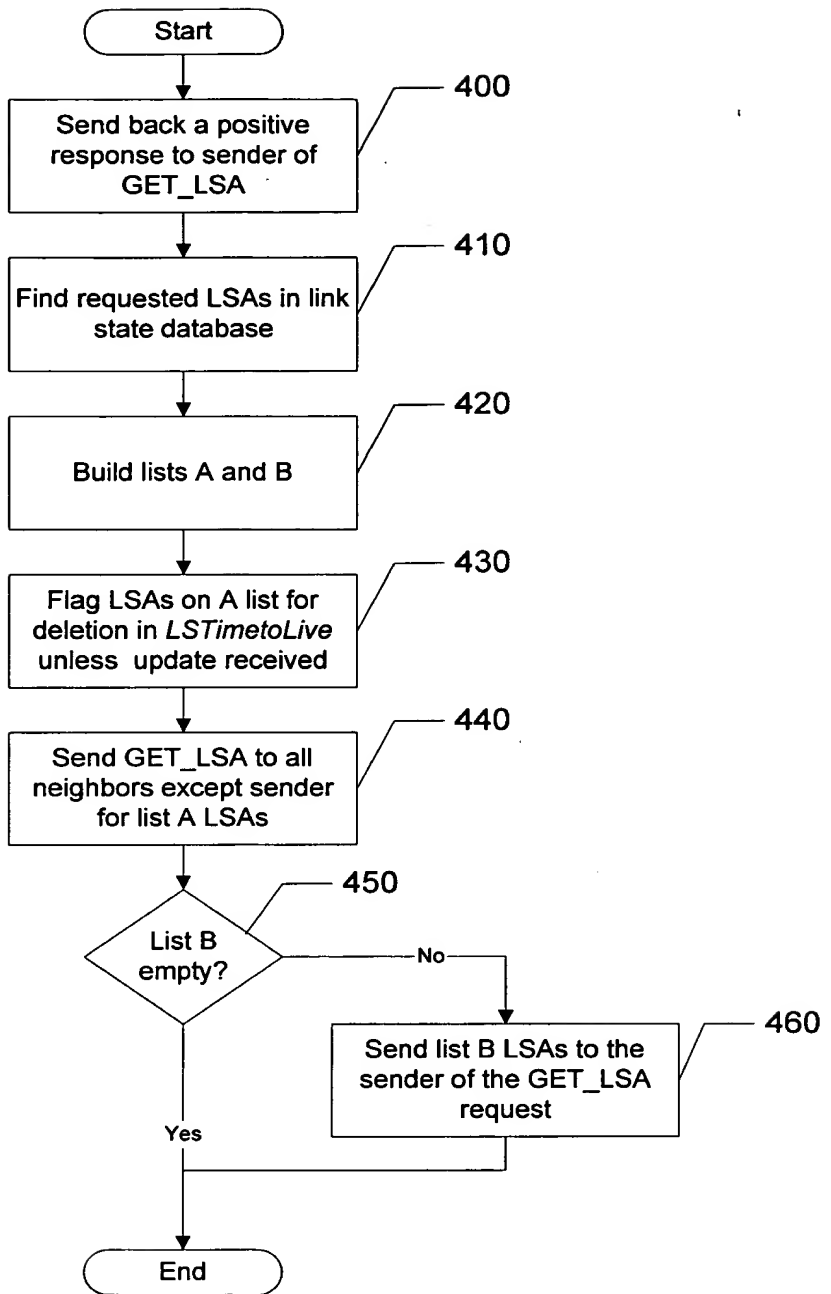


Fig. 4

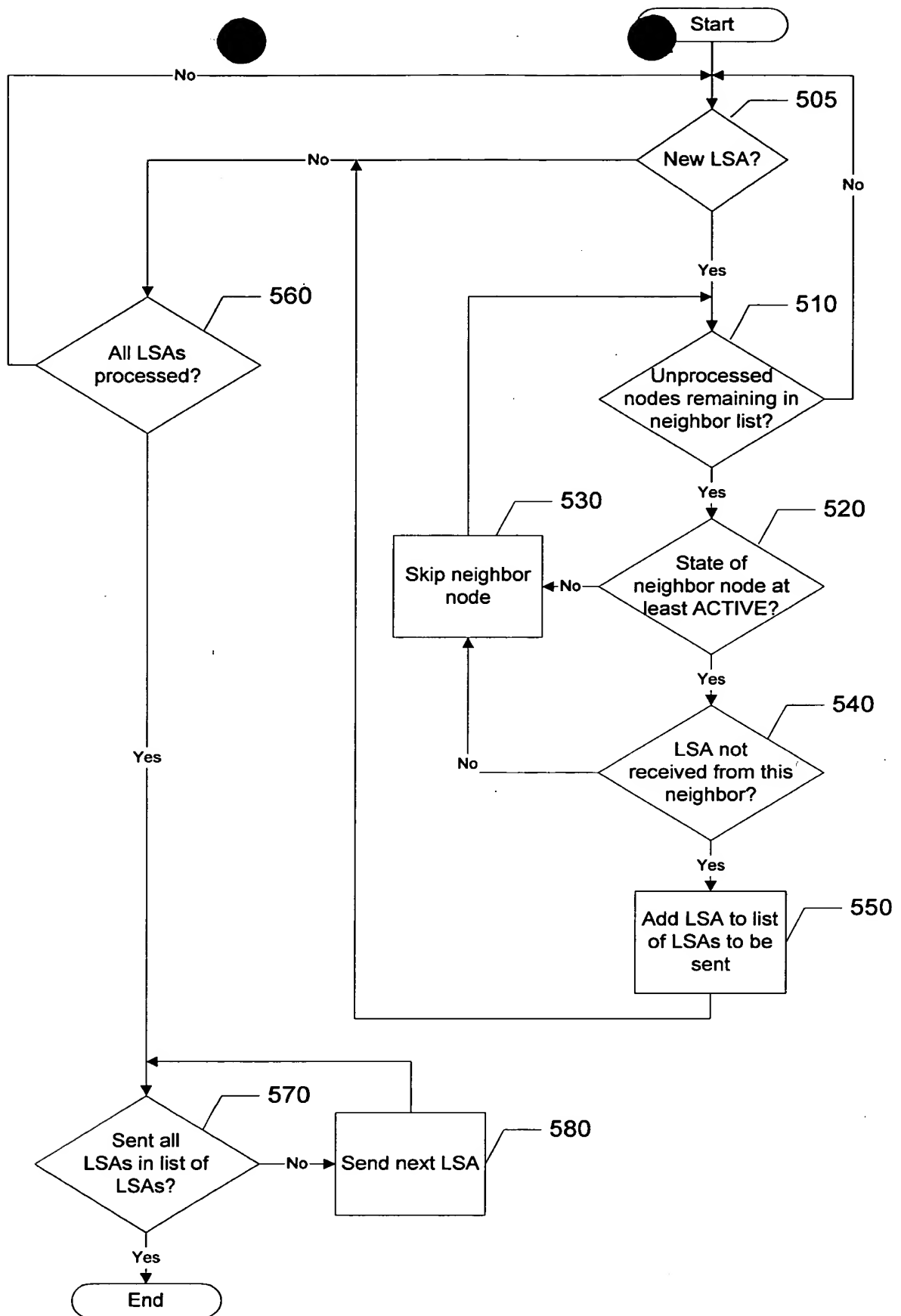


Fig. 5

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graph TD
    Start([Start]) --> 600{Any LSAs in message still unprocessed?}
    600 -- No --> End([End])
    600 -- Yes --> 610{HOP_COUNT = MAX_HOPS?}
    610 -- No --> 620[Skip this LSA]
    610 -- Yes --> 630{LSA's checksum valid?}
    630 -- No --> 635[Discard this LSA]
    630 -- Yes --> 640{LSA in the database?}
    640 -- No --> 645[Install this LSA in the database]
    640 -- Yes --> 650{LSA & LSA in the database not received from same node?}
    650 -- No --> 655[Install this LSA in the database]
    650 -- Yes --> 660{LSA more recent than LSA in the database?}
    660 -- No --> 665[Discard LSA]
    660 -- Yes --> 670[Install this LSA in the database]
    620 --> 675[Acknowledge LSA]
    635 --> 675
    645 --> 675
    655 --> 675
    665 --> 675
    670 --> 675
    675 --> Start

```

**Fig. 6**

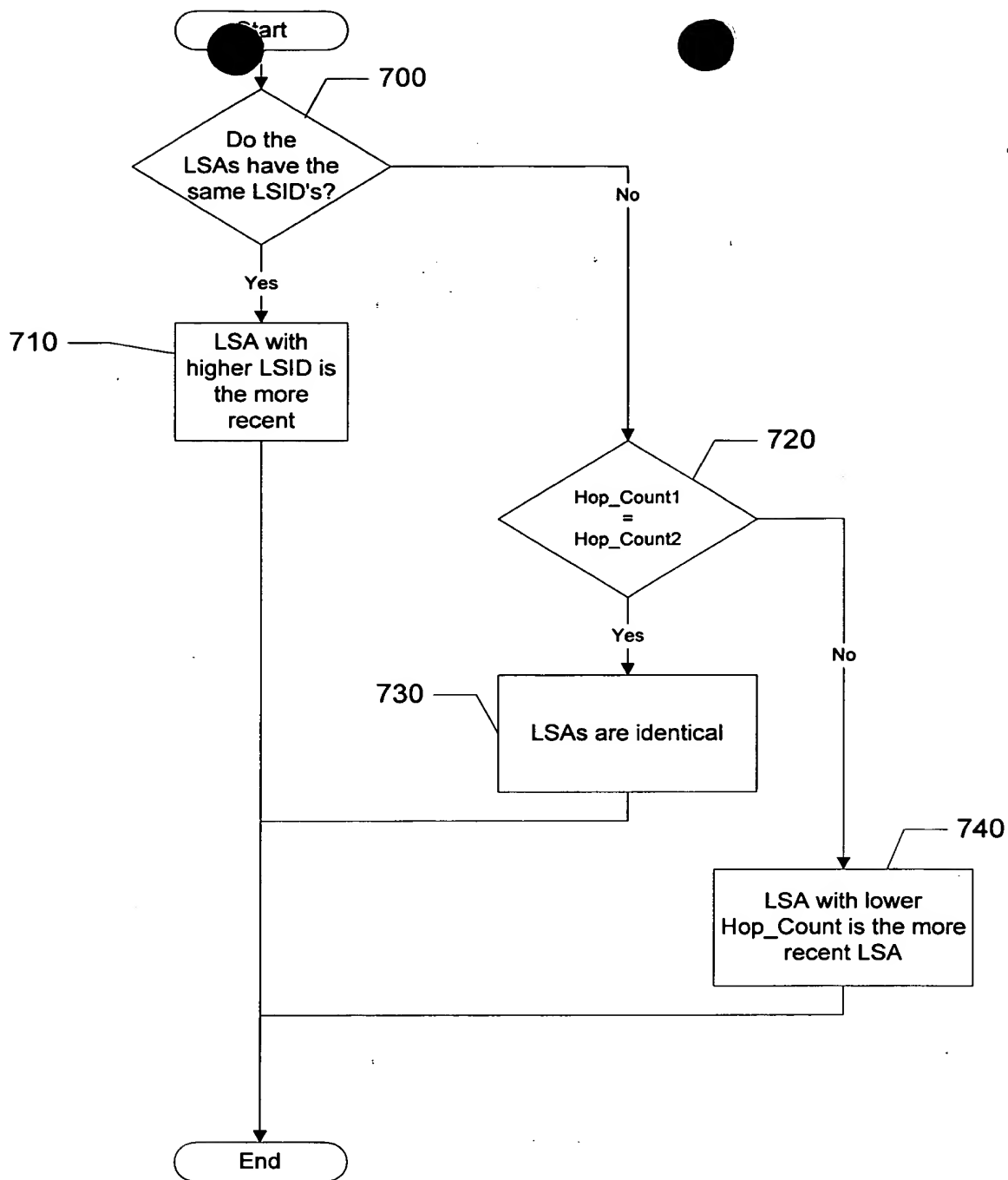


Fig. 7





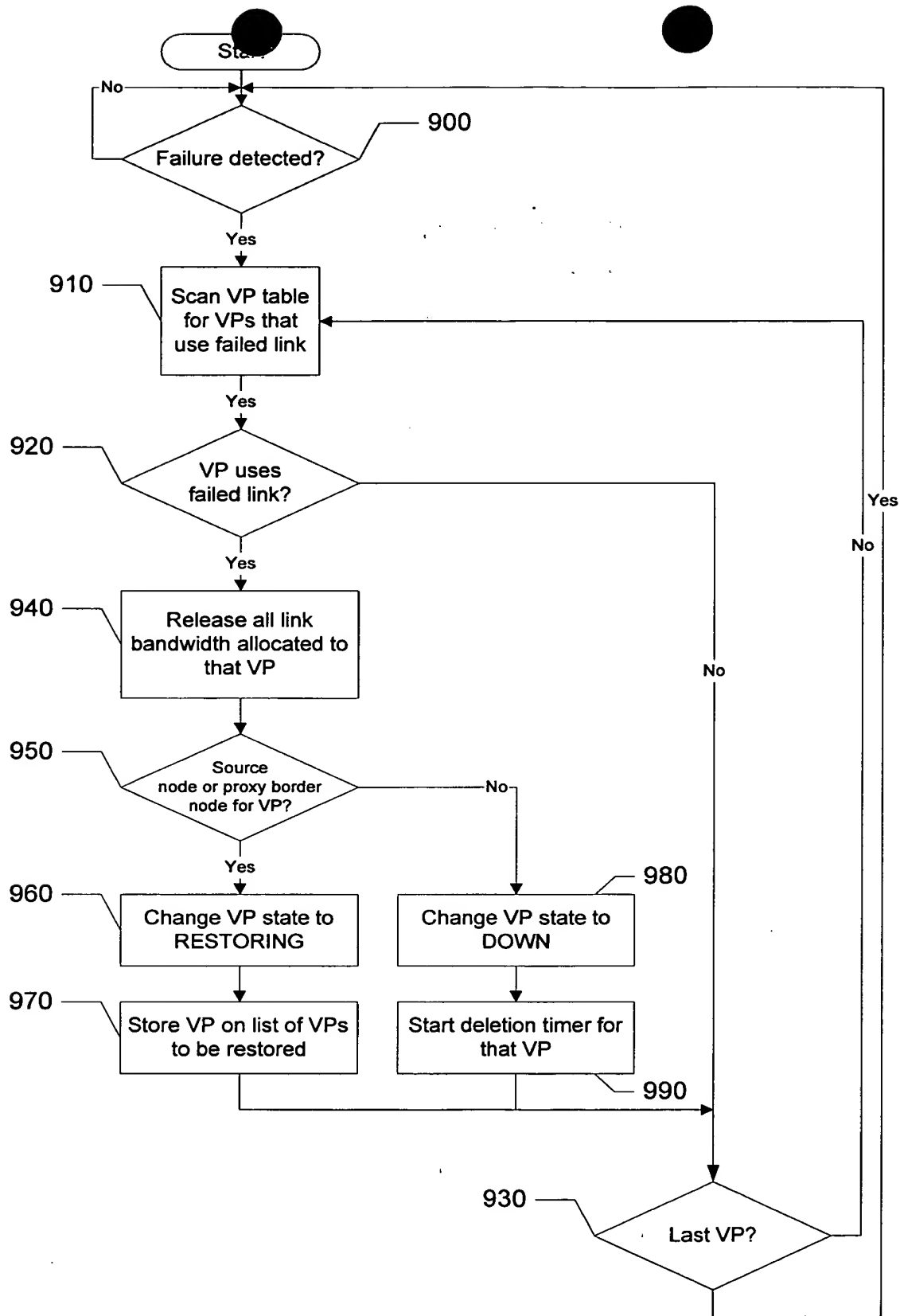


Fig. 9

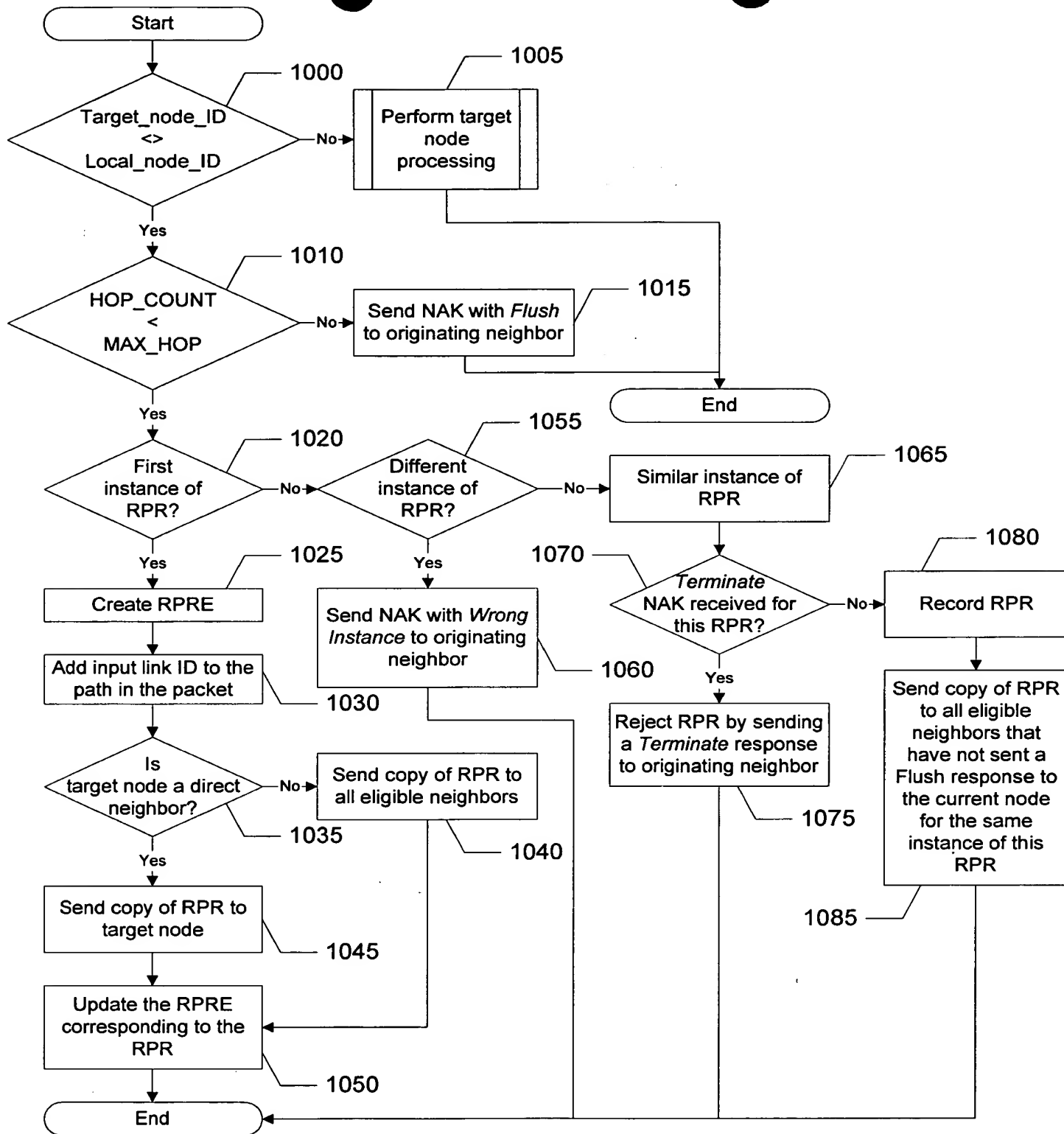


Fig. 10

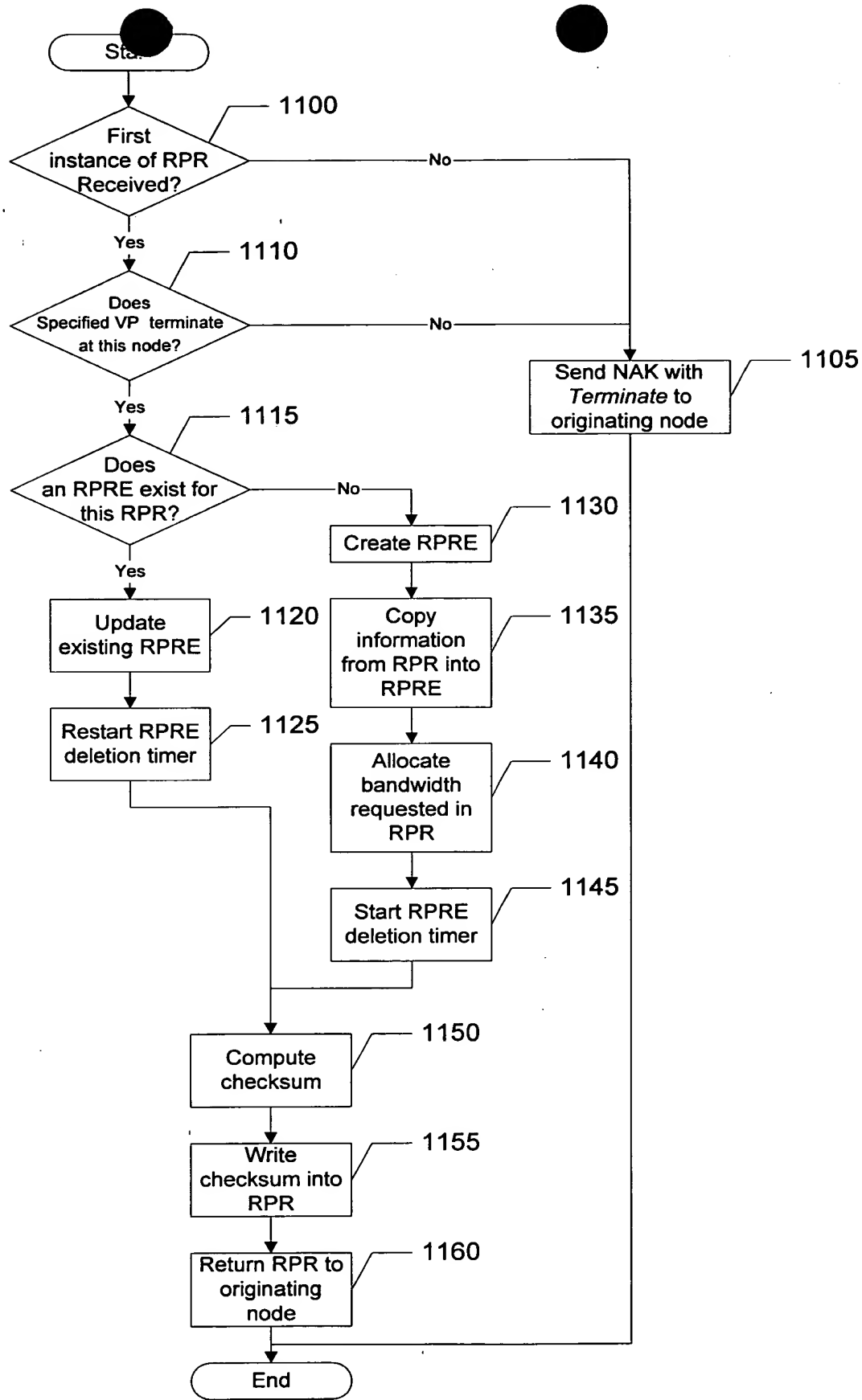


Fig. 11

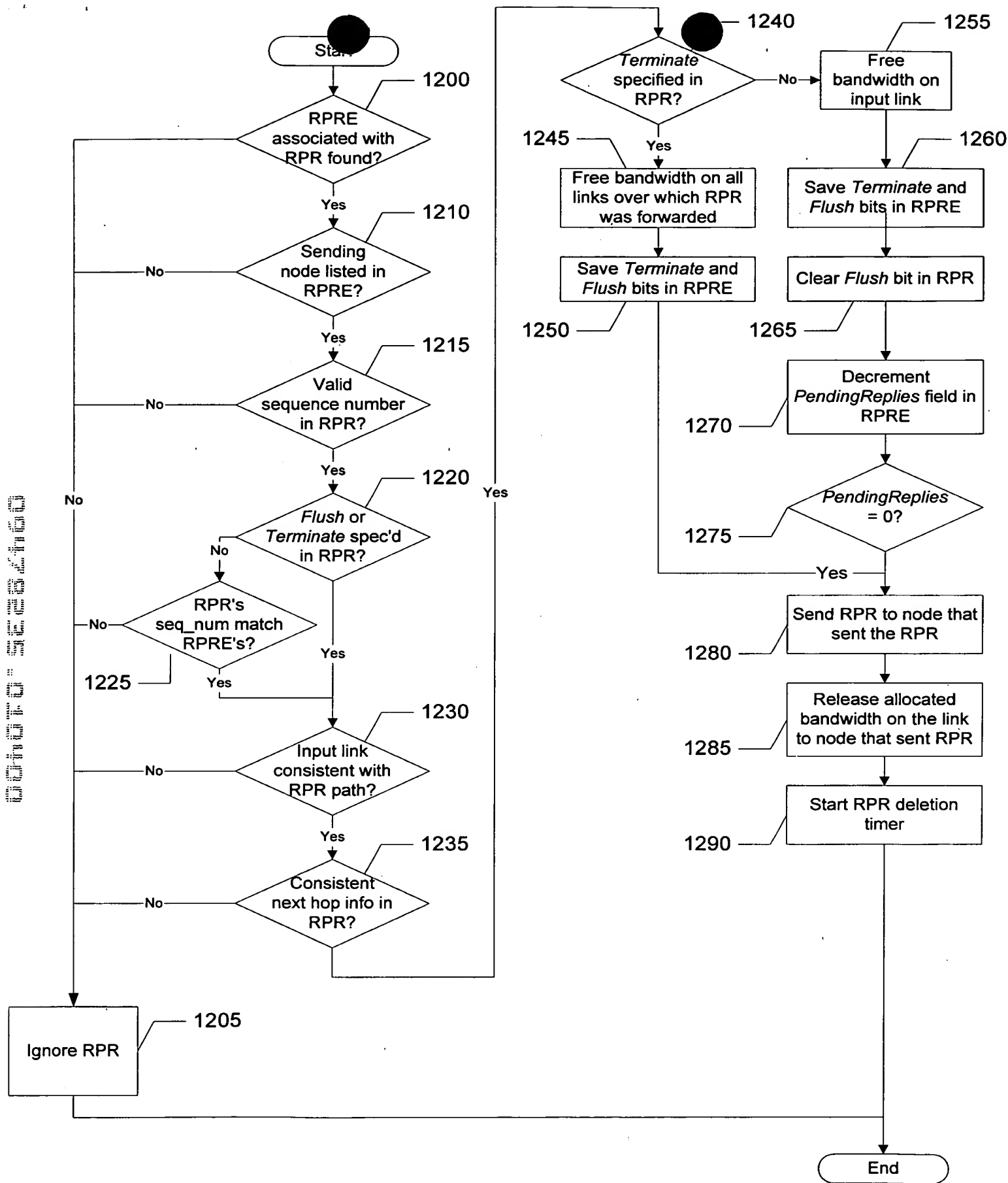


Fig. 12

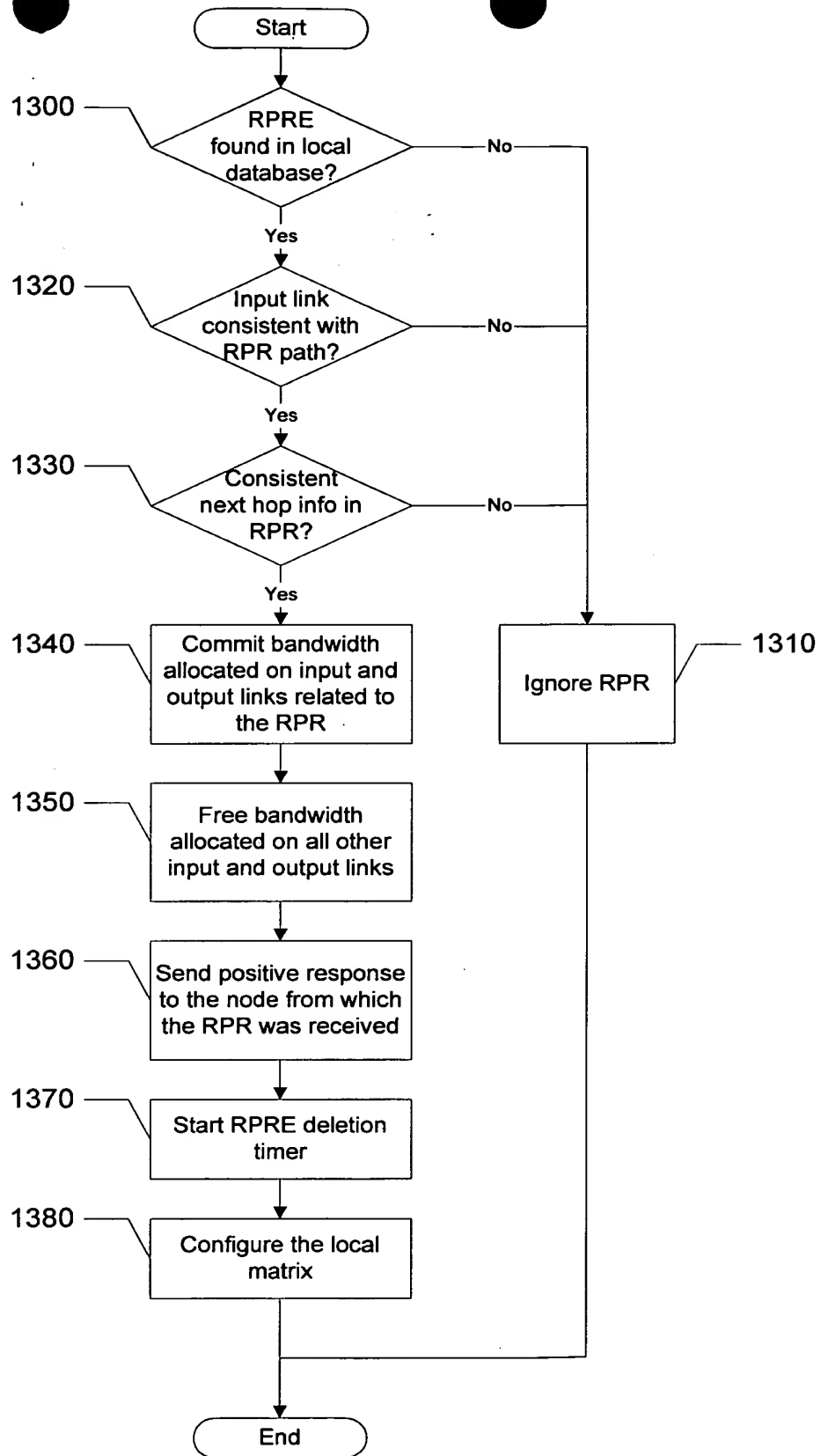


Fig. 13

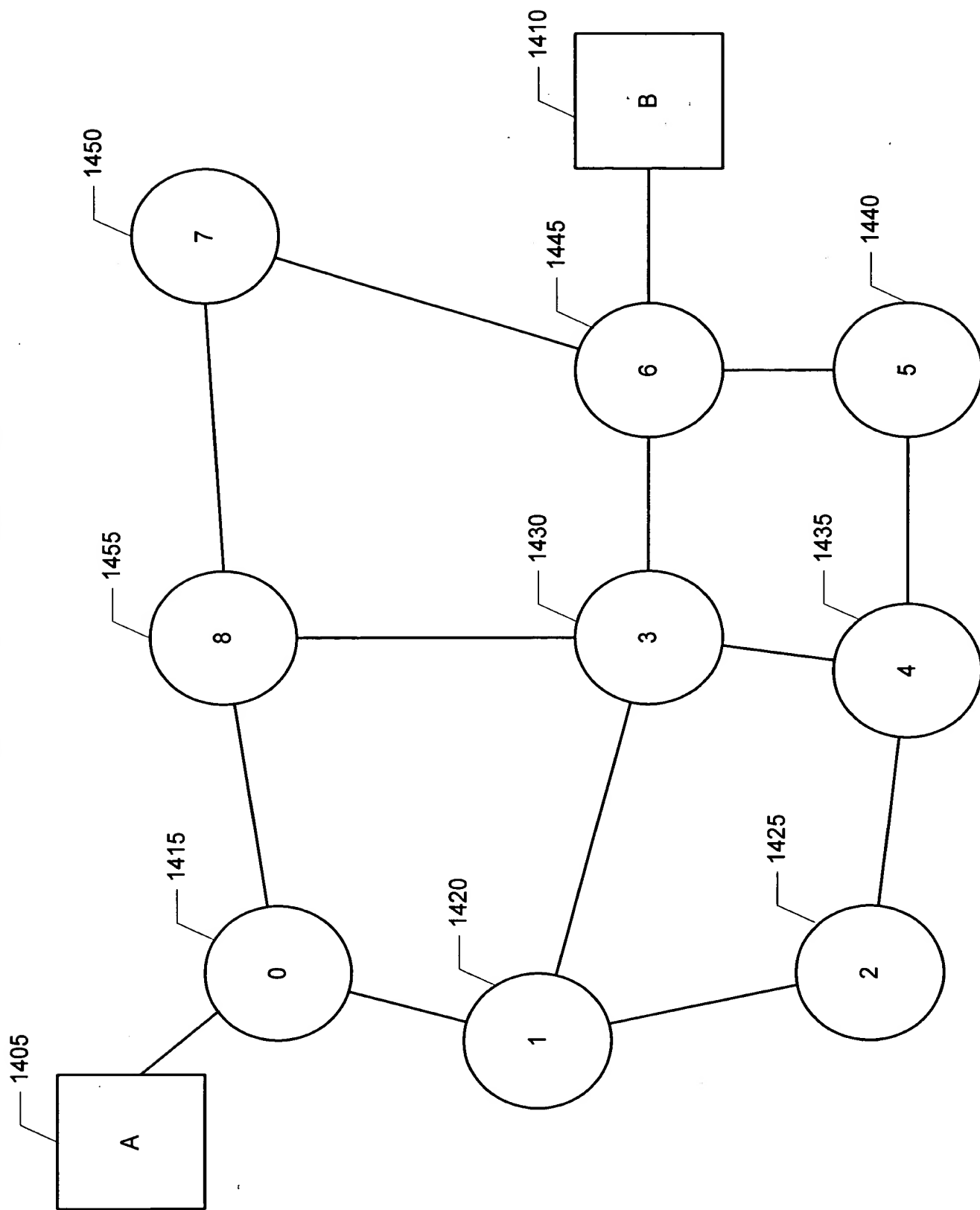


Fig. 14

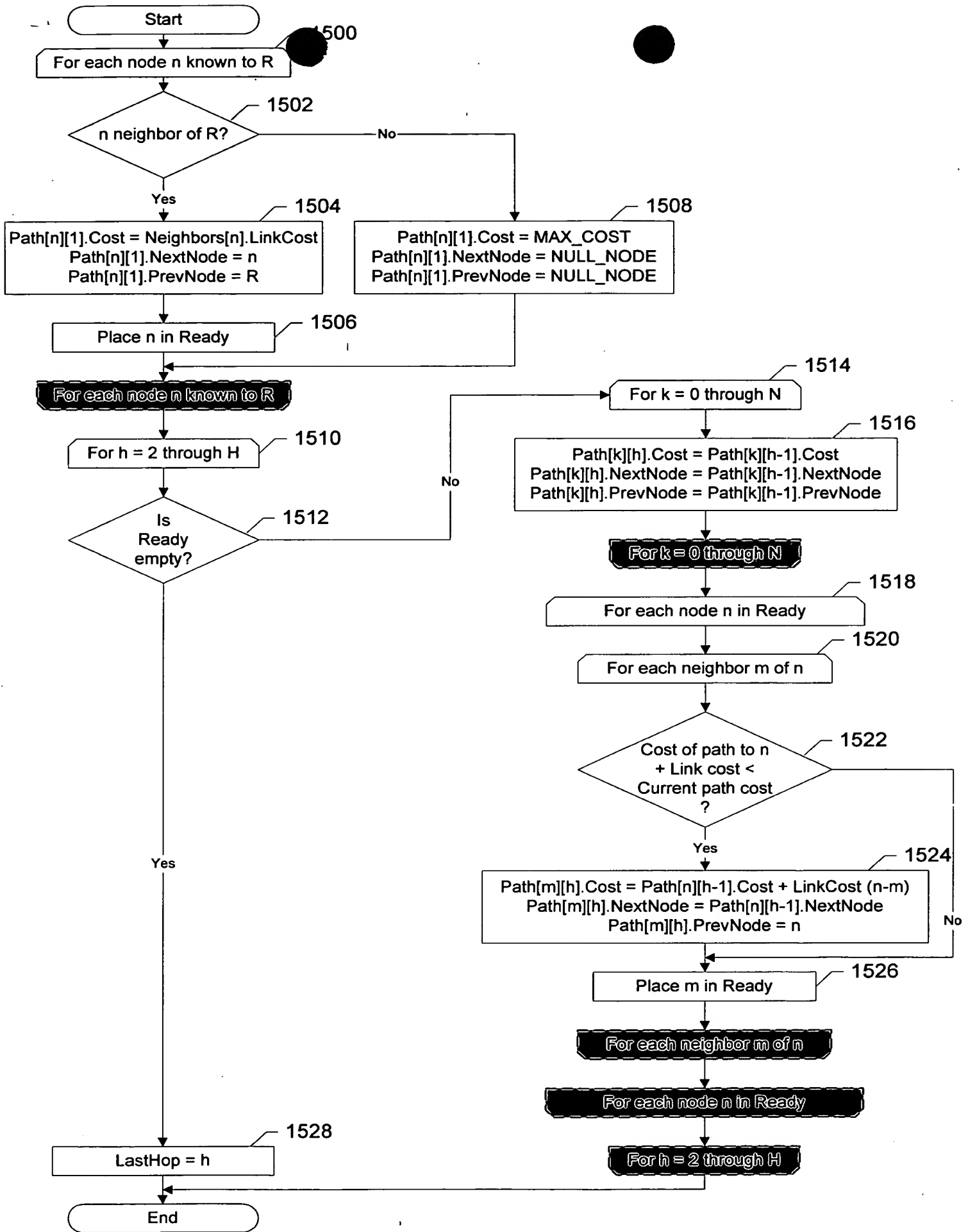


Fig. 15A

```

graph TD
    Start([Start]) --> 1530[Initialize indices]
    1530 --> 1532{Current entry's cost equal to MAX_COST?}
    1532 -- Yes --> 1534[Increment the number of hops taken]
    1534 --> 1536[Increment the column counter]
    1536 --> 1532
    1532 -- No --> 1537[Store DestinationNode in NewPath]
    1537 --> 1538{Current previous node entry <> root node?}
    1538 -- Yes --> 1540[Store current previous node entry]
    1540 --> 1542[Set current row to row corresponding to current previous node entry]
    1542 --> 1544[Decrement the column counter]
    1544 --> 1538
    1538 -- No --> 1546[Store R in NewPath]
    1546 --> End([End])

```

**Fig. 15B**



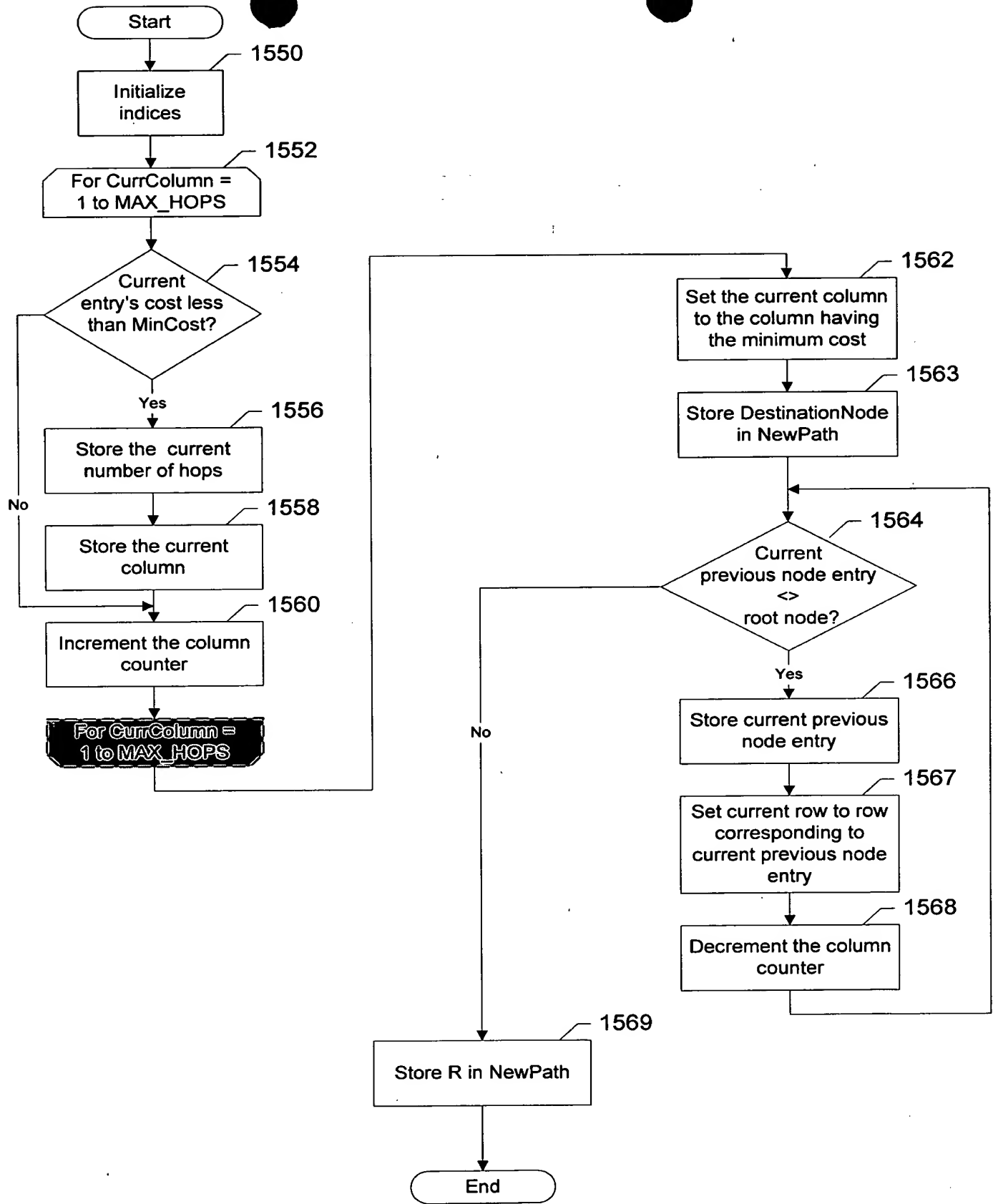
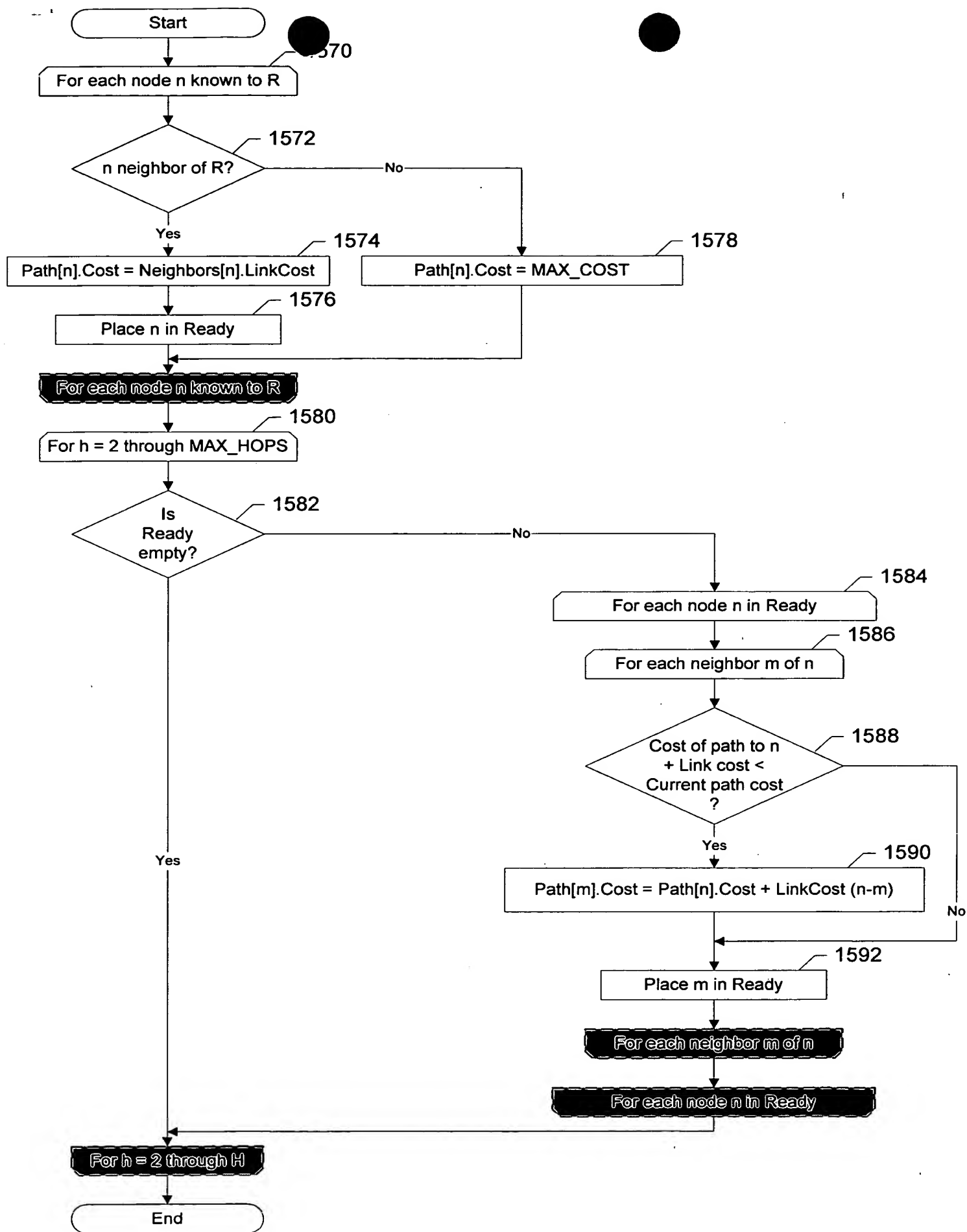


Fig. 15C



**Fig. 15D**